Professional development in the digital age. Benefits and constraints of social media for lifelong learning

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Professional development in the digital age. Benefits and constraints of social media for lifelong learning

Lo sviluppo professionale nell'era digitale. Vantaggi e criticità dei social media per l'apprendimento permanente

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Abstract

This paper presents an overview of reviews of the literature on the opportunities and constraints of social media use for professional development. The objective is to map the studies in the field to identify possible research gaps and, in tandem, to indicate future directions for effective and safe use of social platforms for lifelong learning. The study is based on Ebsco, WoS, Scopus and Google Scholar search, and on the adoption of explicit criteria for the selection of relevant studies, i.e. literature reviews published in English in peer-reviewed journals from 2009 to 2019 with a specific focus on social media for professional development. Thirteen pertinent studies were identified that were analysed with respect to the theme and nature of the reviews. The results of the selected studies were also coded in terms of benefits and constraints.

Keywords: social learning; social media; professional development; lifelong learning; overview of reviews.

Abstract

Il contributo presenta una rassegna delle revisioni della letteratura sulle opportunità e le criticità legate all'uso dei social media per lo sviluppo professionale. L'obiettivo è di mappare gli studi nel settore per individuare aree di ricerca ancora inesplorate e, parallelamente, indicare direzioni di sviluppo per l'uso efficace e sicuro delle piattaforme social per il lifelong learning. Lo studio si basa sull'interrogazione di Ebsco, WoS, Scopus e Google Scholar e sull'applicazione di criteri espliciti di selezione degli studi rilevanti, vale a dire revisioni della letteratura pubblicate in inglese su riviste referate nel periodo 2009-2019 con un focus specifico sui social media per lo sviluppo professionale. Sono stati individuati 13 studi significativi che sono stati analizzati rispetto al tema e alla natura delle rassegne. I risultati di tali studi sono stati poi codificati in termini di opportunità e criticità.

Parole chiave: social learning; social media; sviluppo professionale; lifelong learning; rassegna di revisioni della letteratura.

1. Introduction

Over the last few decades, expressions such as *lifelong learning* or *continuing education* have become widespread in the institutional lexicon of the European Union which, through studies, recommendations and programmes, has defined a global strategy to support lifelong learning. This notion has been interpreted in various ways over time (London, 2011), from the idea that learning pertains to life as its inherent component, to professional development in the adult education context. Regardless of the focus, a key concept for lifelong learning is that people must continually update their knowledge and skills to cope with the changing challenges of everyday life; consequently, promoting autonomous learning becomes crucial for people's personal and professional development (Bentley, 1998).

In this context, information and communication technologies (ICTs) have been viewed from a double perspective. On the one hand, they have been considered as a factor requiring the continuous updating of workers' skills, either because of the constant and rapid evolution of technologies, or because of the impact they have on the skills needed to perform the new *digital jobs*. On the other hand, ICTs have been perceived as a driving force for change, that is, as a resource facilitating innovation processes as well as supporting learning anywhere and at any time in other words, continuous, uninterrupted learning in formal and informal settings. Some scholars have criticized this extremely optimistic view of the potential of ICTs for the continuous updating of the workforce and of citizens in general (Selwyn & Gorard, 2003). In fact, it is worth underscoring that digital technologies alone cannot determine the generation of informal lifelong learning processes. What is important is the way that ICTs are used within specific social and cultural contexts in generating precise practices. From this point of view, we are taking the first steps towards an understanding of effective mechanisms, especially when considering the role of new digital environments like the social media or social networking sites, whose adoption among professionals to share practices and information is gradually growing (Olmstead, Lampe & Ellison, 2016).

Although we are only at the beginning in the research on social media in education, several studies and reviews have already been published in the last few years that latch onto their potential as a lifelong learning tool (Choo et al., 2015; Manca & Ranieri, 2017; Mason & Rennie, 2008; McLoughlin, 2016; Ranieri, Manca & Fini, 2012). This present article sets out to map the academic landscape of research around the use of social media for professional development purposes to identify potential benefits and constraints of these platforms for continuing education. Rather than focusing on primary studies, it will provide an overview of the reviews (Blackwood, 2016) in order to give a broader picture of the current situation and identify research gaps for future studies in the field.

To this end, it begins by presenting the theoretical background of current research on social media use for learning and continuing education. It continues with an explanation of the research questions underlying the study and the methods adopted to carry out the overview of the reviews. The paper then presents and discusses the main findings on social media benefits and constraints, concluding with an analysis of the limitations and potential directions for future research.

2. Learning as a social process, from communities to crowds

A variety of theoretical frameworks characterize the current debate on the nature of the social structures that are shaping the landscape of social media and on their role for professional development (Ranieri & Manca, 2013). An initial relevant framework is the *community of practice* concept (CoP) (Lave & Wenger, 1991). A community of practice consists of a group of people who share an interest, a set of common problems, or a passion for a subject and who broaden their knowledge and experience by progressively interacting with each other. In this way, learning occurs through appropriate peripheral participation in a community of people who share their practices and through the relationships that are instilled between people, activities, environments, and other communities, allowing the tacit transfer of knowledge. Some authors have pointed out that the construct of communities of practice is difficult to apply to virtual contexts, where online interactions are mainly based on codified forms of communication that poorly support the transfer of tacit knowledge (Calvani, 2005). This has led authors like Brown and Duguid (2000) to distinguish between CoPs and Networks of Practices (NoPs). The main difference between the two lies in their affiliation methods that also influence the evolution of members' expertise: with communities, members have greater control over new members' admission and the conditions under which they are accepted; instead, networks are larger and less controllable.

Another prolific perspective is that of Haythornthwaite (2011), who adopted a new term, *crowd* to describe the social structures that are generated in online learning network spaces. Crowds are *light* collaborative structures that do not entail the need to know the individuals involved in a project nor to work directly with them. This type of collaboration involves minimum commitment, thereby reducing the obstacles to participation. A crowd-sourced project can continue even if the participants completely change, given that survival relies mainly on the authority of those who initially promoted the projects and manage the activities. In fact, this model is based on independent contributions made by individuals who are not necessarily related to one another, welcomes contributions of a differing value, and requires minimum effort in terms of commitment, belonging, and continuity. Its vitality depends on the interest that individuals have in the overall project, without any specific obligations to other contributors.

Further references have come from Thomas and Brown (2011) and Dron and Anderson (2007; 2014), who introduced the concept of the *collective*. For Thomas and Brown (2011), the collective is an alternative concept to that of the community. The key idea that distinguishes communities from collectives is the different mechanism that regulates the relationship between the individual and the institution: in the case of a community, the investment is structured in the individual-institution direction, while in the case of a collective, the investment is articulated in the opposite direction. In a similar vein, Dron and Anderson (2007; 2014) have highlighted three entities that come into play in the social dynamics which characterize online learning contexts, namely, the *group*, the *network*, and the *collective*. The peculiarities of groups are the individual awareness of belonging, the sharing of a common goal, defined rules of engagement, participation and leadership. Groups are typical of formal educational settings. Unlike groups, networks are characterized by weak ties. Indeed, they are made up of individuals who share some common interests around a general theme, but without a real collaborative objective being declared. The sense of belonging is emphatically weaker than in groups. Those who join a network usually do so to improve their reputation, through forms of recognition such as

explicit appreciation of their contributions. Finally, we find the collectives, which are viewed as an ideal space for serendipity, learning by discovery, fortuitously coming across something interesting while searching for something else.

To sum up, we can state that, despite the variety of frameworks, the various originators are united by the identification of a *light* construct (i.e., a network, crowd, or collective) to describe the social structures that are forming in the social media landscape as an informal learning environment. Networks, crowds, or collectives are characterized by flimsy ties (Haythornthwaite, 2011) and bridging social capital (Ellison, Steinfield & Lampe, 2007), elements that are typical of professional online networks which allow participants to connect with colleagues and resources, to gather information to solve work-related problems, and to consolidate personal relationships with colleagues.

3. Aims of the study

This overview of the reviews aims to explore the current literature on social media to identify their potential benefits and constraints for lifelong learning. More specifically, it focuses on the following research questions:

RQ1. what types of reviews have been published over the last decade on social media for lifelong learning?

RQ2. what are the main benefits identified in the literature associated with learning through social media for continuing education and professional development?

RQ3. what are the main challenges identified in the literature associated with learning through social media for continuing education and professional development?

4. Methodology

The focus of this review is to provide an overview of reviews (Blackwood, 2016, p. 14), in other words, to develop "an overall picture of findings" rather than "repeating the searches, gauging study eligibility, and assessing bias risk from the studies included". These types of review are designed to summarize and combine significant data from existing systematic reviews to inform decision-making processes. Components of the methodology to undertake a review of reviews are in many ways similar to that of a *systematic review*, and include the development of a research question, the definition of objectives and inclusion criteria, the search for systematic reviews or meta-analyses, the formation of a dataset, the critical appraisal of selected reviews and a summary of the findings. For this specific review, the examination focused on articles which (i) had been published in English language peer-reviewed journals; (ii) analysed the use of social media (including blogs, Facebook, Twitter, etc.) for professional development purposes; (iii) reported empirical findings; and (iv) presented research questions and documentation regarding the main procedures.

Articles were collected through an extensive search using the keywords 'social media', 'Facebook', 'Twitter', 'Instagram' or 'social networking sites' AND 'professional development' or 'professional learning' or 'continuing education' and different search

criteria for each source, as follows: (i) Ebsco Academic journals, Journals, Reviews (TX All Text, English); (ii) Web of Science (Topic, English articles, review); (iii) Scopus (Title-ABS-KEY, English articles, review). The time span considered was 2009-2019. Further articles were gathered through Google Scholar.

The searches pinpointed a series of reviews: (i) Ebsco: 11 articles; (ii) Web of Science: 5 articles; (iii) Scopus: 30 articles; (iv) Google Scholar: 6 articles. The records were examined and filtered for inclusion according to the workflow reported in Figure 1. Two papers were not accessible in the full version[1]. In the end, the total number of papers selected for review was 13.

The 13 selected papers were analysed and coded according to the following criteria:

- author(s);
- year of publication;
- research area (Medicine & Healthcare professions/Social sciences/Arts and Humanities/Computer Science/Business & Management/Biochemistry, Genetics & Biology/Psychology/Teaching or Training);
- type of review (rapid reviews, i.e. based on limited resources due to time constraints; scoping reviews, i.e. based on broad questions; systematic reviews, i.e. which describe and appraise previous work in a systematic way);
- social media focus (as defined in the article): Social media/Web 2.0/Social & mobile media/Social networking sites/Facebook/Twitter/LinkedIn/Instagram;
- aim and theme of the study;
- number of studies included in the review;
- number of participants;
- main findings.

The information extraction process was partially based on guidelines developed by Smith, Devane, Begley and Clarke (2011), while the thematic summary was carried out through an iterative process of qualitative content analysis (Braun & Clarke, 2006). Theme topics were partly derived from a review of the literature on social media benefits and challenges (Choo et al., 2015) and partly generated through the analyses.

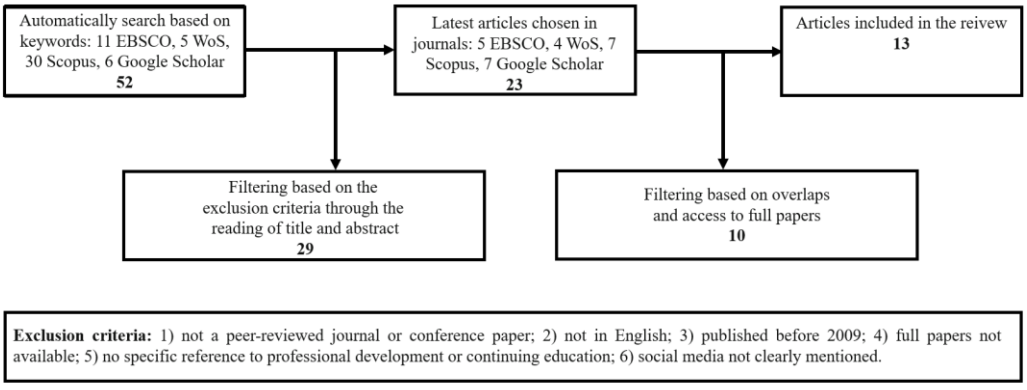

Figure 1. An overview of the workflow to identify pertinent reviews.

[1] Papers excluded due to inaccessibility issues were: Abuhadra, Majhail & Nazha (2017); Greenhow, Campbell, Galvin & Askari (2018).

5. Results

5.1. Scope and nature of pertinent reviews

As for the temporal distribution of the articles' publication, Figure 2 shows a relatively balanced time distribution over the period 2013-2018 with two or three pertinent reviews published per year, while no relevant article was identified for the period 2009-2012. Looking at the research area, *Medicine & Healthcare* are undoubtedly the most commonly represented fields with seven reviews (Alenezi & Yaiesh, 2018; Cheston, Flickinger & Chisolm, 2013; Chretien & Tuck, 2014; Curran et al., 2017; Lawson & Cowling, 2014; Pander, Pinilla, Dimitriadis & Fischer, 2014; Roberts et al., 2015) out of 13 devoted to the use of social media in the field of medical education and for continuous professional development. this is followed by the area of *Teaching & Training* with three reviews (Macià & García, 2016; Nagle, 2018; Reilly, 2017). Two reviews (Manca & Ranieri, 2013; Manca & Ranieri, 2016) are cross-disciplinary while one review (Fox & Bird, 2017) combines the fields of *Medicine & Healthcare* and *Teaching & Training*.

Focusing on the social media under review, the articles mainly refer to social media in general terms (5/13) or also mention, in passing, the mobile media (1/13) or social networking (1/13); three reviews specifically focus on Twitter and three on Facebook (Figure 2).

Examining the aims of the reviews (Figure 2), a dominant theme is the value of social media as a learning tool. Specifically, some articles focus on the pedagogical benefits of social platforms such as Twitter or Facebook or, more generally, web 2.0 tools, in order to highlight the opportunities they provide for professional learning, or to understand the type of learning experiences they offer learners (Alenezi & Yaiesh, 2018; Cheston et al., 2013; Fox & Bird, 2017; Manca & Ranieri, 2013; Manca & Ranieri, 2016; Nagle, 2018; Pander et al., 2014; Reilly, 2017). Three papers concentrated on identifying possible challenges that could prevent the adoption and use of social media for professional development (Cheston et al., 2013; Lawson & Cowling, 2014; Nagle, 2018): For example, Nagle analysed the extent to which the presence of violent content on Twitter might lead educators to question the use of social media for professional learning purposes, while Cheston et al. looked at the repercussions that the use of social media might have on the implementation of interventions. One article explicitly mentions an interest in investigating the factors which influence the adoption of social media (Alenezi & Yaiesh, 2018), while only two articles concentrate on the impact of social media-based interventions in terms of effectiveness (Curran et al., 2017) or satisfaction, knowledge, attitudes, and skills (Cheston et al., 2013). Two reviews (Chretien & Tuck, 2014; Macià & García, 2016) also include an analysis of theoretical and methodological approaches, but only one paper (Fox & Bird, 2017) clearly mentions among its aims an interest in exploring the nature of the research study examined. Of particular interest is one article devoted to an understanding of the contribution of social media to continuous professional development through Twitter-based journal clubs.

Review Year	Research area*	Aims	Social media focus**
Alenezi & Yaiesh (2018)	Medicine & Healthcare	To explore the use of social media as a learning tool for lifelong learning in medical education. To examine the factors affecting social media use in medical education.	Social media & Web 2.0

Nagle (2018)	Teaching & Training	To highlight Twitter benefits for teachers' professional learning and challenges linked to inappropriate social media content.	Twitter
Curran et al. (2017)	Medicine & Healthcare	To explore the effectiveness and implications of using digital social and mobile technologies across the educational continuum in Healthcare education.	Social & mobile media
Fox & Bird (2017)	Medicine & Teaching	To map the landscape of academic study on social media use by teachers and doctors to ascertain the nature of the studies carried out, the type of learning considered, and the evidence collected.	Social media
Reilly (2017)	Teaching & Training	To examine how teachers and future teachers use Twitter to contribute to their continuous professional learning.	Twitter
Macià & García (2016)	Teaching & Training	To analyse the current theoretical frameworks and methodological approaches, the characteristics of online communities and networks, and their repercussions in teacher professional development.	Social media & Social networking sites
Manca & Ranieri (2016)	Cross-field	To investigate whether and to what extent Facebook benefits have been exploited according to different types of learning settings (formal and informal).	Facebook
Roberts et al. (2015)	Medicine & Healthcare	To evaluate the state of social media–facilitated journal clubs, specifically on Twitter, as an example of continuing professional development.	Twitter
Chretien & Tuck (2014)	Medicine & Healthcare	To analyse literature on online professionalism, to assess methodologies and approaches used, and to provide insights to guide future studies in this area.	Social media
Lawson & Cowling (2014)	Medicine & Healthcare	To establish whether the inherent challenges of social media use may limit its adoption as a platform for professional development in radiography.	Social media
Pander et al. (2014)	Medicine & Healthcare	To explore how Facebook as a learning tool has been integrated into medical education while assessing the evidence provided and identifying the research gaps.	Facebook
Cheston et al. (2013)	Medicine & Healthcare	To assess the impact of interventions using social media tools on doctors' satisfaction, knowledge, attitudes, and skills. To identify challenges and opportunities that educators encountered in implementing these interventions.	Social media
Manca & Ranieri (2013)	Cross-field	To examine the use of Facebook as a technology-enhanced learning environment and assess to what extent its pedagogical potential is put into practice.	Facebook

*Medicine & Healthcare/Social sciences/Arts and Humanities/Computer Science/Business & Management/Biochemistry, Genetics & Biology/Psychology/Teaching or Training.
**Social media/Web 2.0/Social & mobile media/Social networking sites/ Facebook/Twitter/LinkedIn/Instagram.

Figure 2. Scope of pertinent reviews.

As for the types of review included in our study, Figure 3 shows that most articles (7/13) were *Scoping Reviews* (Curran et al., 2017; Fox & Bird, 2017; Manca & Ranieri, 2013; Manca & Ranieri, 2016; Nagle, 2018; Pander et al., 2014; Reilly, 2017) involving broad research questions and also responding to different research interests. Four articles (Cheston et al., 2013; Lawson & Cowling, 2014; Macià & García, 2016; Roberts et al., 2015) defined themselves as Systematic Reviews with an analytical approach to reviewing, while 2 articles were classified as Rapid Reviews because they were either based only on the reading of abstracts (Alenezi & Yaiesh, 2018) or they were self-defined as synthetic reviews (Chretien & Tuck, 2014). In almost all cases, the strategies and methods used to search the databases, extract information from selected papers and summarize them were carefully described (Figure 2), but only in one case was the search strategy described (Roberts et al., 2015) and in two cases neither the search strategy nor

the information summary process were reported (Nagle, 2018; Reilly, 2017). The number of studies included in the reviews varied from a minimum of 11 (Roberts et al., 2015) to a maximum of 162 (Fox & Bird, 2017). Apart from Fox and Bird (2017) and Pander et al. (2014), the total number of participants involved in the studies included in the reviews was never given.

Review	Type of review	Search strategies	No. of studies included in the review	Tot. no. of participants
Alenezi & Yaiesh (2018)	Rapid review	Database searched & key terms described as well as information extraction & summary	17	Not specified
Nagle (2018)	Scoping review	Not described	74	Not specified
Curran et al. (2017)	Scoping review	Database searched & key terms described as well as information extraction & summary	125	Not specified
Fox & Bird (2017)	Scoping review	Database searched & key terms described as well as information extraction & summary	162	3.000 participants, UK & US, medical 6.000 participants, Italy, faculties 80.000 tweets in German education, DE
Reilly (2017)	Scoping review	Not described	16	Not specified
Macià & García (2016)	Systematic review	Database searched & key terms described as well as information extraction & summary	23	Not specified
Manca & Ranieri (2016)	Scoping review	Database searched & key terms described as well as information extraction & summary	147	Not specified
Roberts et al. (2015)	Systematic review	Database searched & key terms described, while information extraction & summary not	11	Not specified
Chretien & Tuck (2014)	Rapid review	Database searched & key terms described as well as information extraction & summary	32	Not specified
Lawson & Cowling (2014)	Systematic review	Database searched & key terms described as well as information extraction & summary	12	Not specified
Pander et al. (2014)	Scoping review	Database searched & key terms described as well as information extraction & summary	16	4.728
Cheston et al. (2013)	Systematic review	Database searched & key terms described as well as information extraction & summary	14	Not specified
Manca & Ranieri (2013)	Scoping review	Database searched & key terms described as well as information extraction & summary	23	Not specified

Figure 3. Types and nature of the pertinent reviews.

5.2. Main findings

The findings of the pertinent reviews were coded through an iterative process of thematic analysis leading to an identification of the following categories, which partially concur with the analysis by Choo et al. (2015):

- *benefits*, including facilitating knowledge exchange by connecting communities of practice; keeping up to date; building a support network (which also includes providing feedback and mentorship as well as nurturing a sense of community); sharing resources and ideas (comprising the sharing of information during conferences); facilitating knowledge translation and post-publication peer review;
- *constraints*, including propagation of inaccurate or inappropriate information (including hate speech or violent content); threats to professionalism (e.g., difficulty to mark the difference between personal and professional use); threats to privacy; lack of evaluation strategy of learning results; threats to productivity (especially in terms of waste of time); slow adoption due, for instance, to resistance to change or a lack of technical skills; lack or low level of assistance, especially for the pedagogical use of technological tools; lack of representation in participation (e.g., women, blacks, etc.);
- *other findings*, including learners' satisfaction with the use of social media for learning purposes; hazy evidence on learning improvements.

Figure 4 shows the distribution of the articles among the different categories. Needless to say, one article might be classified under more than one category if it investigates several or wide-ranging research questions.

Findings		**Reviews**	**No. of reviews**
Benefits	Facilitating knowledge exchange by connecting communities of practice	Cheston et al., 2013; Lawson & Cowling 2014; Macià & García, 2016; Nagle, 2018; Reilly, 2017; Roberts et al., 2015	6
	Keeping up to date	Reilly, 2017; Roberts et al., 2015	2
	Building a support network	Alenezi & Yaiesh, 2018; Cheston et al., 2013; Lawson & Cowling 2014; Macià & García, 2016; Nagle, 2018; Reilly, 2017	6
	Sharing resources and ideas	Alenezi & Yaiesh, 2018; Fox & Bird, 2017; Lawson & Cowling 2014; Macià & García, 2016; Manca & Ranieri, 2013; Manca & Ranieri, 2016; Nagle, 2018; Reilly, 2017	8
	Facilitating knowledge translation and post-publication peer review	Roberts et al., 2015	1
Challenges		**Reviews**	**No. of reviews**
	Propagation of inaccurate or inappropriate information	Fox & Bird, 2017; Chretien & Tuck, 2014; Nagle, 2018	3
	Threats to professionalism	Alenezi & Yaiesh, 2018; Chretien & Tuck, 2014; Fox & Bird, 2017	3
	Threats to privacy	Alenezi & Yaiesh, 2018; Cheston et al., 2013; Chretien & Tuck, 2014; Lawson & Cowling 2014; Manca & Ranieri, 2016; Pander et al., 2014	6
	Lack of strategy to evaluate learning results	Roberts et al., 2015	1
	Threats to productivity	Alenezi & Yaiesh, 2018	1
	Slow adoption	Alenezi & Yaiesh, 2018	1
	Lack or low level of assistance	Cheston et al., 2013; Macià & García, 2016; Nagle, 2018	3
	Lack of representation in participation	Cheston et al., 2013; Macià & García, 2016; Nagle, 2018; Roberts et al., 2015	4

Other findings		Reviews	No. of reviews
	Learners' satisfaction with the use of social media for learning purposes	Cheston et al., 2013; Curran et al., 2017; Pander et al., 2014	3
	Hazy evidence on learning improvements	Pander et al., 2014	1

Figure 4. Main findings of the pertinent reviews.

As can be noted in Figure 4, among the benefits, *Sharing resources and ideas* (8) is the most commonly reported one in the selected reviews, followed by *Facilitating knowledge exchange by connecting communities of practice* (6) and *Building a support network* (6). These benefits conjointly point out the potential of social media for collaboration and networking, incorporating exchange of information, feedback and support. For example, as stated by Lawson and Cowling (2014), "As a professional development tool, social media encouraged collaboration and networking, especially between practitioners who would not otherwise be linked. This might include those who are geographically isolated or those who lack professional confidence. Linking via social media encouraged healthcare practitioners to share case studies, ask for advice and contribute professional opinions" (p. e77). Similarly, Macià and García (2016) observed "The main practices pursued in communities include conversations to share experiences, knowledge and materials, as well as provide emotional support, develop collective projects and offer skills training [...] Teachers enlarge their professional community, share resources and reflect on teaching practices […] The opportunity to share own experiences helps teachers to think about what they do in their daily routine as a result of the contributions or the questions posed by other teachers and also the effect that writing about the experience has on the creation of new understanding" (p. 298). Much less common are *Keeping up to date* (2) and *Facilitating knowledge translation and post-publication peer review* (1), but articles which emphasise these aspects do provide interesting reasons for them to be underlined. Specifically, by referring to the contribution of Twitter-based journal clubs to continuing education, Roberts et al. (2015) commented "Given the current information explosion in medical research, Twitter also represents a potentially credible alternative to traditional *Commentary* pieces in peer-reviewed journals, allowing input from multiple key opinion leaders not previously available" (p. 8).

As far as challenges are concerned, *Threats to privacy* (6) are reported in several reviews followed by *Lack of representation in participation* (4), *Lack or low level of assistance* (3), *Threats to professionalism* (3) and *Propagation of inaccurate or inappropriate information*. While privacy arouses well-known concerns, particularly as regards the disclosure of patients' personal data (Alenezi & Yaiesh, 2018) or that of students (Macià & García, 2016), not being sufficiently represented online may require additional explanations. Specifically, Nagle (2018) found that "the existing literature suggests that research on Twitter use in Teaching is only being conducted on a narrow demographic of teachers (*that is white western teachers,* author's note). To understand how different groups of people are engaging and navigating within social media spaces, we must understand a diversity of online users and their experiences" (p. 88). As for *Threats to professionalism*, one of the phenomena most often investigated is the unprofessional online behaviour of doctors and health professionals, which ranges from patient privacy violations to sexual content, from photos suggesting alcohol intoxication to pictures in a swimsuit and so on. In this regard, Chretien and Tuck (2014) reported that "Surveys of medical educators and administrators confirmed that incidents involving unprofessional

content online by medical professionals have reached the attention of medical leadership and have at times resulted in serious consequences" (p. 111), such as dismissal from medical school. Unprofessional behaviour is also linked to posting unprofessional content including, for example, inappropriate comments about hospital staff, patients, or the workplace. Instead, in the Teaching sphere, Nagle (2018) raises a relevant issue related to the pedagogical use of Twitter for Teaching stating that "This questioning, of what happens to others in the class exposed to inappropriate tweets, is significant. Educators need to consider all facets of interaction online, and the implications to those witnessing inappropriate content" (p. 89).

6. Discussion

RQ1) What types of reviews have been published over the last decade on social media for lifelong learning?

Thirteen articles were found that are relevant to the present overview. They were published from 2013 onwards, especially in the field of *Medicine & Healthcare*, followed by *Teaching & Training*. Most of these were *scoping reviews* focusing on an analysis of the benefits of social media for lifelong learning. An examination of the scope and nature of these reviews led to the identification of a research gap, namely, the scarcity of studies on the role of social media as a lifelong learning tool in further research areas such as the Social Sciences, Psychology, Biology, Arts and Humanities, Computer Science, Business & Management, etc. In addition, almost all the reviews selected were based on qualitative analyses and narrative descriptions, while rigorous quantitative studies measuring the effect of social media tools on learning were few.

RQ2) What are the main benefits identified in the literature associated with learning through social media for continuing education and professional development?

The main benefits of social media for lifelong learning and professional development are the sharing of resources and ideas, facilitating knowledge exchange by connecting communities of practice, and building a support network including collaboration among communities of practitioners, feedback, and mentorship. These opportunities are consistent with the theoretical frameworks underlying the notions of NoPs (Brown & Deguid, 2000), Crowds (Haythornthwaite, 2011) and Collectives (Dron & Anderson, 2007; 2014; Thomas & Brown, 2011): the online professional communities examined in the studies reported in the selected reviews were characterized by social structures enabling forms of collaboration based on the exchange of ideas and information, mutual support among members to analyse cases and solve problems, and the search for connections with other groups within the network space.

RQ3) What are the main challenges identified in the literature associated with learning through social media for continuing education and professional development?

The main challenges are associated with the risks to privacy deriving from personal data disclosure, which is an inherent characteristic of the social media in general. Further threats concern the weakening of professionalism and the circulation of inaccurate content. Both issues are in some way connected to the nature of the social structures which inform networked professional communities. Since these communities as informal learning spaces are characterized by flimsy ties and less control (Dron & Anderson, 2014; Haythornthwaite, 2011), the possibility of propagating inaccurate content increases: with

low-threshold or non-existent filters, participants may post inappropriate or unprofessional content, sometimes even unconsciously. This leads to two considerations. Firstly, the need emerges to develop a social media professionalism which would entail preparing professionals to appropriately interact in and through social media platforms (Alenezi & Yaiesh, 2018). Secondly, as underlined by Nagle in 2018, educators and trainers using social media for professional development reasons should reflect on the risk of exposing their trainees to inappropriate information, including hate speech or violent content, and establish strategies to ensure safe use.

7. Limitations

This overview of reviews has several limitations. Due to the fast-changing nature of the field, there might be more pertinent papers that have been published in the last year but were overlooked. Furthermore, two papers were not accessible, thereby limiting the available evidence. But most importantly, the reviews selected and included were heterogeneous in many aspects: some reviews were based on a wide corpus of studies, while other reviews were founded on a limited amount of publications; some reviews clearly described their methods to search databases and summarize the information, while others did not; some reviews were much more systematic than others in that they provided details on the studies included in their review with a different degree of accuracy; some reviews also included a quality appraisal process or at least declared that they had included only papers published in peer-reviewed journals in their selection, while other reviews did not mention any elements related to quality appraisal. These differences had an impact on the inherent quality of the reviews selected and also made it difficult to summarize the data, the results and the implications. Nevertheless, they did map the landscape of social media use for professional development through a transparent process of selection and summary which can be repeated for more refined analyses.

8. Conclusion

Social media in education have been the object of several studies over the last few years, especially for their potential to support informal communication and sharing of resources, collaboration and networking, mutual support, and mentoring. These opportunities have also been investigated in the fields of professional development and continuing education. This paper has analysed and summarized the main results emerging from a selection of studies in the field to identify possible research gaps and new research directions. Despite the limitations highlighted above, which require us to process and use the evidence found in a critical way, the examination of the selected reviews did confirm the value of social media as digital platforms supporting the development of networks of practices, while also indicating certain challenges. First off, there is still uncertain evidence on the impact of social media in terms of learning improvements: most reviews have a qualitative and narrative approach with no reference to measures to assess impact. It must be said that most experiences of professional development through social media take place in informal settings and this makes it difficult for educators or researchers to undertake formal evaluation processes. However, rather than renouncing an evaluation of the impact, new forms of assessment should be found to capture the value of informal experience for professional learning. Secondly, while sharing ideas and resources in increasingly hybridized settings – where formal and informal experiences are increasingly

intertwined – may have positive implications on the contextualization of knowledge for continuing education, the increased exposure to or propagation of inaccurate or inappropriate content may have negative consequences for professionalism and professional growth. In the age of fake news, professionals must be prepared to manage all content and information associated with their field in a professional way. Preparation refers both to the production of information and its fruition. Briefly, for professionals to be able to rake benefits from informal experiences of professional learning in the social media landscape, a sort of *professional media and digital literacy* needs to be promoted. Future research should specify the meaning of media and digital literacy for professionals as well as designing and evaluating effective programmes for online professionalism.

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